

CLAIMS

What is claimed is:

1. An apparatus comprising:
 - a surface configured to enclose a first volume having an upper opening and a lower opening, wherein the surface is removably attachable to a court net; and
 - a frame coupled with the surface, wherein the frame is removably attachable to the court net, such that an object can be aimed by a player to enter the upper opening and pass through the lower opening.
2. The apparatus of claim 1, further comprising:
 - a signal means in communication with the lower opening configured to generate a signal observable to the player when the object is proximate to the lower opening.
3. The apparatus of claim 2, wherein the signal is selected from the group consisting of an audio signal and a visual signal.
4. The apparatus of claim 3, wherein the audio signal is selected from the group consisting of a bell sound, a buzzer sound and a whistle sound.

5. The apparatus of claim 3, wherein the visual signal is selected from the group consisting of a light, a blinking light, an illuminated number and an illuminated letter.
6. The apparatus of claim 1, further comprising:
 - a sensor configured to detect the presence of the object proximate to the lower opening, and
 - an alarm responsive to the sensor, such that when the object is proximate to the lower opening the alarm emits a signal observable to the player.
7. The apparatus of claim 1, wherein the court net is a volleyball net.
8. The apparatus of claim 1, wherein the object is selected from the group consisting of a ball and a shuttlecock.
9. The apparatus of claim 1, wherein the surface is made out of a material selected from the group consisting of flexible net material, plastic film and cloth.
10. The apparatus of claim 9, wherein an edge of the upper opening is colored differently from the rest of the surface.

11. The apparatus of claim 10, wherein the color of the upper opening is selected from the group consisting of black, red, orange, a fluorescent color and yellow.

12. The apparatus of claim 9, wherein a cup area is formed in the surface near the lower opening.

13. The apparatus of claim 1, wherein a cross-sectional area of the upper opening is adjustable.

14. The apparatus of claim 13, wherein the cross-sectional area of the upper opening can be adjusted by changing a length of the frame.

15. The apparatus of claim 13, wherein the cross-sectional area of the upper opening can be adjusted by gathering a part of the surface.

16. The apparatus of claim 1, wherein an angle between a plane containing the upper opening and a court floor is changeable.

17. The apparatus of claim 8, wherein the angle can be changed by adjusting a length of at least a part of the frame.

18. The apparatus of claim 1, the frame further comprising:

a plurality of members flexibly coupled together, to allow the surface to collapse, such that the apparatus can occupy a second volume when collapsed and the second volume is smaller than the first volume.

19. The apparatus of claim 1, wherein a material for the frame is selected from the group consisting of aluminum, stainless steel, fiber reinforced resin, plastic and wood.

20. A method comprising:
attaching a surface to a court net; and
forming a volume in the surface with a frame, wherein the volume has an upper opening and a lower opening, such that an object can be directed by a player to enter the upper opening and then exit the lower opening.

21. A method, as in claim 20, further comprising:
detecting the presence of the object proximate to the lower opening; and
generating a signal observable to the player.

22. A method, as in claim 20, further comprising:
adjusting an angle between a plane containing the upper opening and a reference plane.

23. A method, as in claim 20, further comprising:

adjusting a cross-sectional area of the upper opening.

24. A method, as in claim 20, wherein the surface is made out of a material selected from the group consisting of net material, a plastic film and cloth.

25. A method, as in claim 20, wherein a material for the frame is selected from the group consisting of aluminum, stainless steel, fiber reinforced resin, plastic and wood.

26. A method, as in claim 20, wherein the object is selected from the group consisting of a ball and a shuttlecock.

27. An apparatus comprising:

a sensor configured to detect an object proximate to a lower opening of a volume defined by a surface, wherein the surface is removably attachable to a court net; and

an alarm responsive to the sensor, such that when the object is proximate to the lower opening the alarm emits a signal observable to a person.

28. The apparatus of claim 27, wherein the sensor is made with a material selected from the group consisting of Polyvinylidene Fluoride (PVDF), an elastic member, a flexible cord, a spring and an electrical switch.

29. The apparatus of claim 27, wherein the alarm emits a signal selected from the group consisting of an audio signal and a visual signal.

30. The apparatus of claim 29, wherein the audio signal is selected from the group consisting of a bell sound, a buzzer sound and a whistle sound.

31. The apparatus of claim 29, wherein the visual signal is selected from the group consisting of a light, a blinking light, an illuminated number and an illuminated letter.

32. An apparatus comprising:

a surface configured to enclose a first volume having an adjustable upper opening and having a lower opening, wherein the surface is removably attachable to a court net; and

a frame coupled with the surface, wherein the frame is removably attachable to the court net, such that a ball can be aimed by a player to enter the upper opening and pass through the lower opening.

33. The apparatus of claim 32, further comprising:

a sensor configured to detect the presence of the ball proximate to the lower opening; and

an alarm responsive to the sensor, such that when the ball is proximate to the lower opening the alarm emits a signal observable to a human.

34. The apparatus of claim 32, wherein a cup area is formed in the surface near the lower opening.

35. The apparatus of claim 32, the frame further comprising:

a plurality of members flexibly coupled together, to allow the surface to collapse, such that the apparatus can occupy a second volume when collapsed and the second volume is smaller than the first volume.